

The Global Leadership for Climate Action (GLCA) has drawn a possible roadmap to face the issue of climate change.

In the Global Leadership for Climate Action (GLCA) report, four major issues that need to be addressed to confront climate change are identified as:

- 1 The split between developed and developing nations is no longer valid — there are countries that are developed, countries that are rapidly developing, and those that are least developed;
- 2 Putting a price on carbon preferably through taxes;
- 3 Spurring a global technology revolution; and
- 4 Financing technology, development, mitigation and adaptation.

Former US Senator Tim Wirth (left), President of the UN Foundation and Ricardo Lagos (right), President of the Club of Madrid.

Given the scale of the response required, the GLCA recommends a comprehensive, long-term, post-2012 agreement under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC). This will send a clear signal to the market and offer countries the flexibility to implement emissions reduction strategies that are most appropriate to their national circumstances. In addition to setting a timetable for negotiating a

comprehensive post-2012 agreement, the Parties should agree on four pathways for negotiation that address mitigation, adaptation, technology and finance.

However, first we need to agree on a long-term global target. We recommended that all countries commit to reduce collectively global emissions by at least 60% by 2050. This is more ambitious than the 50% target suggested by Canada, the EU, and Japan.

Developed countries would commit to reduce their collective emissions by 30% by 2020, while rapidly industrializing countries should initially reduce their energy intensity by 30% by 2020 (an average of 4% per year) and agree to emissions reduction targets afterwards. Reducing energy intensity would moderate growth in emissions while enabling developing countries to continue to pursue their sustainable development objectives. China has set a goal of reducing energy consumption per unit of GDP by 20% between 2006 and 2010, which amounts to an average annual rate of 4%. Other developing countries should commit to energy intensity targets differentiated by their responsibilities and capabilities.

Finally, our framework recognizes that all emissions sources and sinks are relevant to the solution and must be included in a future agreement; as it is mentioned in the Stern Review: "Establishing a carbon price, through tax, trading or regulation, is an essential foundation for climate-change policy." [Sir Nicholas Stern, former chief Economist of the World Bank, compiled a report on the economics of climate change for the UK government in 2006] The preferable mechanism is a system of harmonized, universal carbon taxes.

Carbon taxes could reduce emissions and generate financial resources that could be used for developing clean energy sources and for adapting to climate change. Carbon taxes are relatively easy to implement and are economically efficient.

Cap-and-trade schemes are generally welcomed by the industry, as they tend to reduce the cost of complying with targets. If a cap-and-trade approach is adopted, emissions allowances should be auctioned to generate revenues that can be used for other purposes.

The poor in developing countries are the most vulnerable and the least able to adapt. Strong mitigation measures are needed to minimize the cost of adaptation; without them, adaptation may be impossible in some countries.

Adaptation should be anchored in poverty reduction strategies. Because financing will be required to advance these plans, we recommend development of a climate fund.

Traditional official development assistance (ODA) also has a role to play since climate change will impede development efforts, frustrate poverty alleviation programmes, and exacerbate migrations from waterlogged, water-scarce or food-scarce regions. We make the case for increasing ODA to finance adaptation measures.

New technologies are also required for adaptation. Future cropping systems, for example, will have to be more resilient to a variety of stresses to cope with the direct and indirect consequences of climate change. New centres should be established to address adaptation in agriculture in developing countries, especially by the Consultative Group on International Agricultural Research (CGIAR) in Africa.

If the world continues on its current energy path, dominated by fossil fuels, energy-related CO₂ emissions in 2050 will be two and a half times their current levels. When fully commercialized, existing clean energy technologies can help stabilize emissions. However, reducing global emissions by at least 60% at acceptable costs will require a technology revolution, akin to those in the space and telecommunication sectors.

Unfortunately, investments in both public- and private-sector energy research and development programmes have been declining for the last two decades. We recommend doubling the aggregate amount of public funds devoted to energy research and development (R&D) to about US\$20 billion per year. This is line with the recommendations of the Stern Review.

The formation of a Consultative Group on Clean Energy Research (CGCR), as suggested by the International Task Force on Global Public Goods, could facilitate international collaboration on the development of a new generation of cleaner, more efficient, and lower-cost technologies and the exchange of information about these technologies.

It is important to all countries that clean energy technologies are made as widely available as possible. It may be beneficial to conduct research and demonstrate technologies in the South. A CGCER could support such research and pay for patents or licensing fees to enable cleaner technologies to be deployed in the South.

Leadership is Key

The Global Leadership for Climate Action (GLCA) is a collaborative effort of the Club of Madrid and the UN Foundation set up as a bold experiment to mobilize political will and offer a vision for the international negotiations.

The Group consists of 25 members, 13 former heads of state and government and 12 who have headed (or currently head) business, civil society or inter-governmental organizations. It also benefits from a panel of seven Senior Advisors from developing and developed countries.

The GLCA is co-chaired by former US Senator Tim Wirth, President of the UN Foundation and Ricardo Lagos, President of the Club of Madrid.

The Club of Madrid is an independent organization dedicated to strengthening democracy around the world by drawing on the unique experience and resources of its Members.

The existing funding sources [for example, the Global Environment Facility (GEF) and the multilateral development banks] are too small for the scale of assistance required. They should be strengthened and their resources enhanced.

The costs of adequately addressing the risk of climate change, according to the Stern Review, are of the order of 1% of annual gross world product. Some of that investment will come from redirecting existing flows, and some will be additional. Funds will be required for increased assistance to developing countries for the adoption of energy efficiency and clean energy technologies, and for avoided deforestation. Funds will also be required for greening power sectors, for adaptation, and for increased R&D and deployment in all countries.

The average net public financial flows from all developed countries (including loans) were US\$58 billion

An Energy Agenda for Dev

We live in a new century of unparalleled opportunities which, if managed correctly, have the potential for expanding the delivery of common goods. We [Members of Club of Madrid] consider these public goods to include rights to clean air and clean water, basic education, health, shelter, food and to participate in the way we are governed. From this perspective, energy is the lifeblood of all our societies and inextricably tied to our common humanity.

The world's current path of energy use, however, is unsustainable. This precious resource, in all its forms, must now be managed in new ways to fight poverty, minimize conflict, protect the environment and create economic opportunities. According to the International Energy Agency (IEA), in 2030 there will still be 1.4 billion people without electricity if no major new policies are implemented. We must, therefore, break the status quos. This is a defining challenge for our times, and one that will require dramatic action sustained for decades.

The global energy system is fundamentally interdependent and all nations have a stake in managing it responsibly. The growing demand for energy to meet economic growth, especially in the emerging economies of China and India, coupled with supplies being concentrated in only a dozen of mostly non-democratic countries, is driving the search to diversify energy sources and delivery. Nonetheless, we will remain heavily dependent on fossil fuels for the foreseeable future. These fuels are increasingly expensive, accounting for a massive transfer of resources from consuming to producing countries. More importantly, the burning of nonrenewable resources at current levels is driving us toward environmental catastrophe.

These realities mean that political leaders must pursue public policy reforms now to encourage energy efficiency and the development of new technologies to capture and sequester carbon. It also demands much greater research, development and deployment of renewable energy sources such as solar, wind, hydro and geothermal power. Regarding biofuels, political leaders must proceed with caution due to the wide variation of economically and environmentally sustainable options and the risks of interrupting food supplies and raising prices for basic commodities.

The interdependent nature of our present and future energy system also requires that political leaders look beyond short-term national interests to find solutions built on expanded dialogue, cooperation, regional and international agreements and, where appropriate, integration of energy infrastructure. The increasing state control of supply is causing new power dynamics that some governments are using to exert undue pressure on their neighbours, and to suppress democratic development in their own countries and externally. There is also a recurring problem of corruption and diversion of national assets for

per year between 1996 and 2005, or about 0.23% of GDP, of which about US\$7 billion per year was for energy.

We recommend a climate fund and estimate that about US\$50 billion per year will be needed for activities in developing countries in support of a comprehensive climate change agreement. The first phase of such funding could initially be about US\$10 billion per year. The CDM has encountered administrative and technical hurdles. Initial projects have been limited to a few countries and a few gases and have been plaqued by bureaucratic procedures, and with little contribution to sustainable

development. These weaknesses derive from the fact that the CDM was created as a project-based instrument. However, the Executive Board recently approved the inclusion of 'programmes of activities' in the CDM.

In order to promote policy reform, underwrite technology development and stimulate investment flows at a scale that is truly transformational, an additional market mechanism must take a sectorial approach.

With its limited time frame, participation and inadequate provisions for monitoring, the Kyoto Protocol

relopment

private gain. This abuse of state control of energy is unacceptable.

To address these problems, the international community and national political leaders should redouble efforts to support greater transparency and accountability in the energy sector. Proper use of national funds collected from energy revenue, coupled with higher levels of development assistance, would help countries meet their obli $gations under the {\it Millennium Development Goals}$ (MDGs) to reduce poverty in half by 2015. Projects like the Extractive Industries Transparency Initiative deserve wide support and should be expanded to cover industries beyond oil and gas. Democratic governance founded on the rule of law will naturally attract much-needed investment from domestic and foreign actors and stabilize energy markets. National governments must reconcile competing energy and environmental interests to ensure a unified strategy that ensures both energy and environmental security.

There is also a critical need to fill the gap in human resources and infrastructure, particularly in resource-rich Africa, Latin America and Asia, in order to expand energy services, especially to the poor. This should include the provision of solar energy for cooling, heating and cooking at village level.

On regional and international levels, energy governance is in dire need of reform. While liberalizing energy markets is important, it is not sufficient to ensure adequate oil and gas supplies or to tackle climate change in coming years. Developing a road map to enhance the predictability of energy supply and demand requires more robust producer-consumer relationships, whether through existing channels such as the International Energy Forum or the establishment of new mechanisms. A broader effort should be undertaken to develop an 'energy agenda for development' with national, regional and global benchmarks. We also encourage the IEA to develop much stronger links with new centres of energy demand like China and India.

As stated in our proposed Framework for a Post-2012 Agreement on Climate Change, an international agreement to regulate greenhouse gas (GHG) emissions must be a top priority of the international community. Without a comprehensive agreement that puts a price on carbon, we will fail ourselves and generations to come.

As we concluded at our meeting last year, current energy and climate realities force us to recognize that humanity has reached a tipping point. At the heart of creating a new energy vision for the survival of our planet is a dedication to democratic development. The Club of Madrid will continue to be fully committed to devoting its time and resources to call attention to this fundamental objective.

This article is based on the final statement of the Club of Madrid VI General Assembly held in November 2007.

was never seen as a solution to the climate problem. It was meant to be a first step. As we embark upon a more comprehensive and inclusive agreement, we need to build on the experience gained from Kyoto, particularly in international emissions trading.

Above all, we need to build trust between countries at all levels of development and establish an equitable basis and new modalities for genuine international cooperation to address the linked challenges of energy and climate security.

We also need to build on the experience of cities, states, communities, businesses, and individuals

who have voluntarily undertaken important steps to address climate change. They have shown that determined action presents substantial opportunities for economic growth and job creation, based on the development and deployment of clean energy technology.

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